

REMARKS

Reconsideration of this application is respectfully requested in view of the Amendment indicated on the attached sheet of claims and the following remarks:

Applicant's invention lies within a unique technology for shearing tubular stock. In this unique technology the tubular stock is gripped by adjacent tools, often called "dies", defining between them a "shear plane" which extends orthogonally through the stock. Once the tubular stock is so gripped, one of the tools is displaced laterally relative to the other tool through an orbital path to cause a clean break of the tubing at the shear plane.

Machinery embodying this technology is often referred to as "supported shear" apparatus because of the presence of a mandrel 32 within the tubular stock in the area of the shear plane. In this application, it is also referred to as "bladeless" shear apparatus because there is no blade, either a rotary saw or a guillotine blade, involved in the shearing action.

This type of tubular stock shear apparatus is generically technically different from the more conventional guillotine blade or rotary saw blade type of shear. In the guillotine blade shear, tooling is used to hold the stock in the vicinity of the blade travel but the two adjacent tooling sets do not move relative to one another. Moreover, the "shear plane" of the present invention has virtually no thickness; i.e., no tubular stock material is lost in the course of the shearing operation. By way of distinction, guillotine blade cutting always involves the loss of a slug or segment of tube stock equal to the thickness of the guillotine blade. The same is true for saw cutting.

Independent claims 1 and 10 clearly describe the invention as one which is peculiar to a "supported shear" which performs "bladeless" shearing of tubular stock. In both claims the invention is further described as involving tooling and/or dies, one of which is laterally orbitally displaceable relative to the other. These structural and functional characteristics are unique to supported shears and are not found in blade type shears.

Applicant's counsel regrets the confusion arising from errors in the previous amendment to claim 4, which errors rendered the claim incomprehensible. Those errors have been corrected with this paper.

In rejecting claims 1, 3, 4, 5, 6, 10 and 11 under 35 U.S.C. § 103(a) the examiner has cited Davis 4,471,678 as a primary reference. The Davis device is a rotary saw in which a saw blade 13 with internal teeth (column 4, lines 25 and 26) rotates about an axis parallel to the tube stock to perform a cutting operation. There are no tooling structures or dies one of which is stationary

and the other of which is moveable through an orbital path. Instead the rotary saw blade cuts the tube by relative rotation; orbital movement simply progresses the cutting interaction between the blade and the tube around the tube in a progressive fashion. Davis is non-analogous art; i.e., it does not fit the category clearly defined by the preamble language in all of the claims at issue.

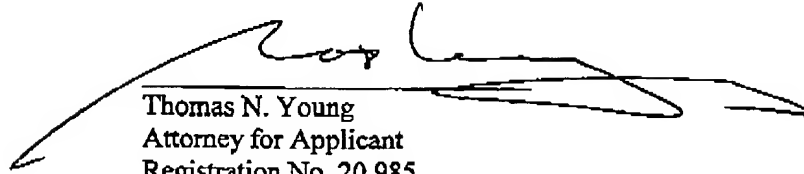
Applicant understands that preamble language is not always effective in distinguishing an invention from prior art. However, the established case law is to the effect that preamble language is to be given weight where that language brings life, vitality and meaning to the claim. That is most certainly the case here since the preamble language places the invention in a unique technology which is fundamentally different from that employed by Davis as well as by the more well-known guillotine type tube cutters.

The examiner appears to recognize the long list of structural shortcomings in the Davis device. Therefore, the rejection of claims is supplemented by Ward 3,874,122 which, although it has nothing whatsoever to do with shearing tubing, discloses in Fig. 2 a pair of parallel racks driven by hydraulic fluid to cause rotation of a shaft 17 and having an integral pinion 16.

Applicant respectfully submits that the Davis and Ward patents, taken together and given the most favorable interpretation, do not begin to establish the obviousness of the claimed invention. Neither of the two references is in the technical field of supported shears for tubular stock and there is no way one having ordinary skill in the supported shear art would see any relevance to either of the two references much less a way to put them together to achieve the structural and functional results of the claimed invention in the present case. Applicant does not claim in this application to have invented a linear to rotary drive; rather, Applicant claims a new apparatus for actuating the elements of a supported shear. In any obviousness evaluation, it is the *invention as a whole* that must be considered according to the language of 35 U.S.C. § 103. The examiner appears to have taken two isolated references from non-analogous technology and put them together in a way which is not suggested or supported by the disclosures of the references themselves or by any other prior art reference. This is impermissible hindsight reconstruction and reconsideration is respectfully requested.

Applicant appreciates the opportunity to respond to the January 25, 2006 office action and respectfully requests favorable action on all of the presently submitted claims.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Tom Young', is written over a horizontal line.

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